

Docket No. 3501-1004

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requested to contact the undersigned at the telephone number listed below.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned ``VERSION WITH MARKINGS TO SHOW CHANGES MADE.''

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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Attachments

VERSION WITH MARKINGS TO SHOW CHANGES MADEIN THE ABSTRACT OF THE DISCLOSURE:

The Abstract of the Disclosure has been amended as follows:

ABSTRACT

~~The present invention relates to a~~ catalyst used in the low-temperature pyrolysis of hydrocarbon-containing polymer materials, ~~said catalyst~~and being mainly intended for use in the recycling of rubber waste materials. The catalyst is prepared from a carbon-iron component in the form of microscopic carbon particles and ultra-dispersed iron particles. In order to increase the yield of light hydrocarbon fractions in the condensate and to bind substantially completely the sulphur in the products of the rubber pyrolysis, the catalyst further contains a metal-carbon component. This component consists of the product from the stripping and the pyrolysis of a dispersion that comprises at least one salt of a metal from the group VIII in the periodic table which is capable of decay upon heating in order to form an oxide, wherein ~~said~~the metal is selected from the group comprising iron, nickel and cobalt. The dispersion further includes a carbohydrate as well as a highly volatile solvent

IN THE CLAIMS:

The claims have been amended as follows:

--1. (amended) A catalyst for the low-temperature pyrolysis of hydrocarbon-containing polymer materials, which catalyst comprises an iron-carbon component in the form of microscopic carbon particles and ultra-dispersed iron particles, ~~characterized in that~~wherein said catalyst further comprises a metal-carbon component obtained as a product of the stripping and the pyrolysis of a dispersion that contains at least one salt of metals from the group VIII in the periodic table which is capable of decay upon heating in order to form an oxide, wherein said metal is selected from the group consisting of iron, nickel and cobalt, as well as a carbohydrate and a highly volatile solvent.--

--2. (amended) A catalyst according to claim 1, ~~characterized in that~~wherein said iron-carbon and metal-carbon components are taken in the following proportions (in percent by mass):

iron-carbon component 70 - 98

metal-carbon component 2 - 30.--

--3. (amended) A catalyst according to claim ~~1 or 2~~, ~~characterized in that~~1, wherein said metal-carbon component is obtained as a product of the stripping and the pyrolysis of the dispersion which contains, along with said at least one salt of metals from the group VIII in the periodic table which is capable of decay upon heating in order to form an oxide, wherein said metal is selected from the group consisting of iron, nickel and cobalt, said carbohydrate and said volatile solvent, also an iron-carbon component obtained previously.--

--4. (amended) A catalyst according to claim ~~1 or 2 or 3, characterized in that~~1, wherein said metal-carbon component is a product of the stripping and the pyrolysis of the dispersion which contains an iron salt, a carbohydrate and a highly volatile solvent.--

--5. (amended) A catalyst according to claim 4, ~~characterized in that~~wherein said metal-carbon component is a product of the stripping and the pyrolysis of the dispersion which contains an iron salt, a carbohydrate selected of the group consisting of mono- and disaccharides, and a highly volatile solvent.--

--6. (amended) A catalyst according to claim 5, ~~characterized in that~~wherein said metal-carbon component is a product of the stripping and the pyrolysis of the dispersion which contains an iron salt, a water-soluble high-molecular carbohydrate selected of the group consisting of starch and water-soluble cellulose esters, and water as a highly volatile solvent.--

--7. (amended) A catalyst according to claim 6, ~~characterized in that~~wherein iron and carbon are present in said iron-carbon component in the following amounts (in mole-percent):

iron	1.35 - 46.15
carbon	53.85 - 98.65.--

--8. (amended) A catalyst according to claim 6, ~~characterized in that~~wherein iron and carbon are present in said metal-carbon component in the following amounts (in mole-percent):

iron	0.22 - 2.33
carbon	97.67 - 99.78.--

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--9. (amended) A catalyst according to claim 1,
~~characterized in that~~wherein iron is present in said
catalyst in the form of particles sized 50 to 8,000 Å.